

Product Information

Anti-Cyclophilin B

produced in rabbit, affinity isolated antibody

Product Number **SAB4200201**

Product Description

Anti-Cyclophilin B is produced in rabbit using as the immunogen a synthetic peptide corresponding to a fragment of human Cyclophilin B (GenelD: 5479), conjugated to KLH. The corresponding sequence is identical in mouse, monkey, and canine and differs by one amino acid in rat cyclophilin B. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-Cyclophilin B recognizes human, mouse, monkey, and rat cyclophilin B. The antibody may be used in several immunochemical techniques including immunoblotting (~20 kDa) and immunofluorescence. Detection of the cyclophilin B band by immunoblotting is specifically inhibited by the immunizing peptide.

Cyclophilin B (CypB) is a 21 kDa protein encoded by the *PPIB* gene that belongs to the cyclophilin family, a highly conserved class of proteins originally identified as cellular binding proteins for the immunosuppressive drug cyclosporin A. Cyclophilins are peptidyl-prolyl cis-trans isomerases (PPIases) that assist protein folding by catalyzing the isomerization of peptidyl-proline bonds. CypB is mainly located within the endoplasmic reticulum (ER) of all cell types. CypB is involved in inflammation, viral infection, and cancer. It also plays an important role in protecting cells against ER stress via its PPIase activity. Mutations in the *PPIB* gene give rise to recessive forms of osteogenesis imperfecta and knockdown of this gene decreases cell growth, proliferation, and migration.¹⁻⁵

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody concentration: ~1.0 mg/mL

Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store at -20 °C. For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilutions should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 0.5-1.0 µg/mL is recommended using whole extracts of human HepG2 and rat NRK cells.

Immunofluorescence: a working concentration of 5-10 µg/mL is recommended using mouse 3T3 cells.

Note: In order to obtain best results in various techniques and preparations, it is recommended to determine optimal working dilutions by titration.

References

1. van Dijk, F.S., et al., *Am. J. Hum. Genet.*, **85**, 521-527 (2009).
2. Kim, J., et al., *J. Cell Sci.*, **121**, 3636-3648 (2008).
3. Choi, J.W., et al., *PloS Genet.*, **5**, e1000750 (2009).
4. Heck, J.A., et al., *Biochem. Pharmacol.*, **77**, 1173-1180 (2009).
5. Zheng, F.F., et al., *J. Mol. Endocrinol.*, **44**, 319-329 (2010).

VS,ST,CS,KAA,PHC,MAM 07/19-1